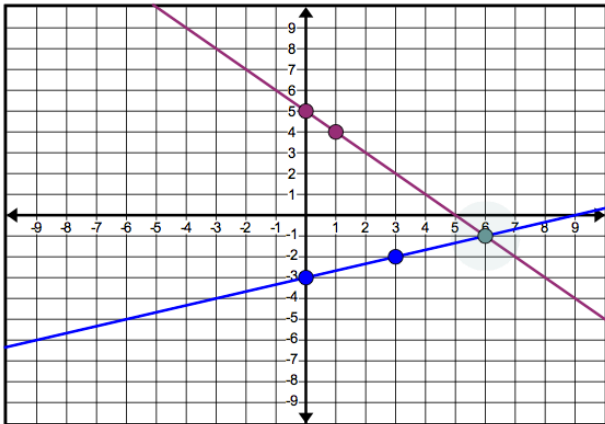
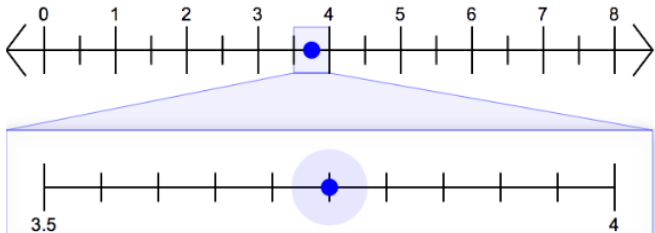
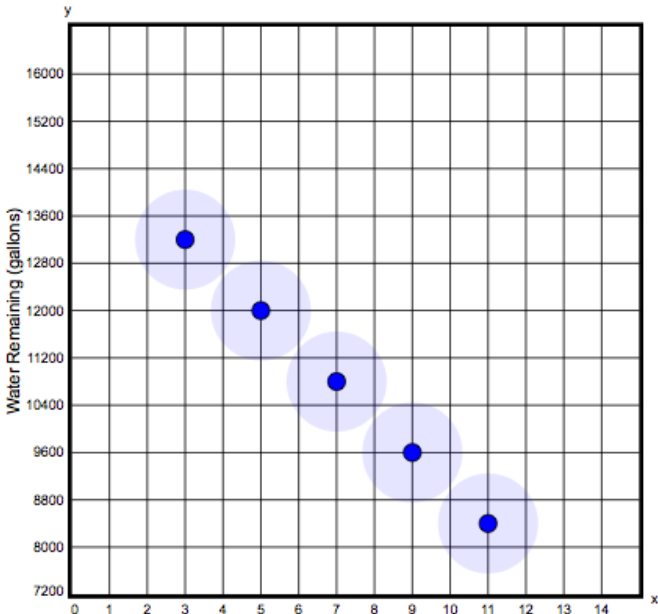
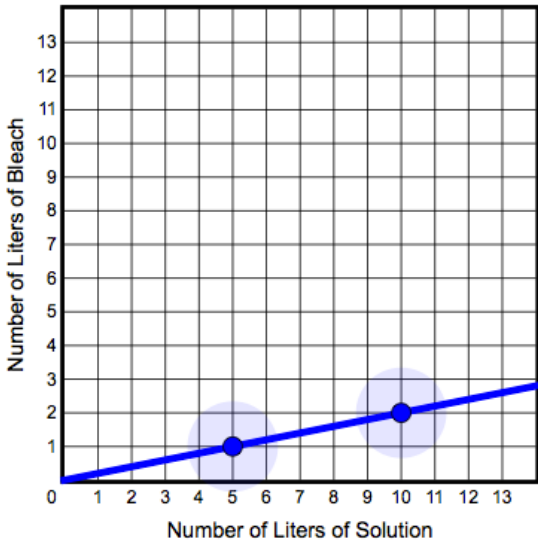


| Item Number | Answer Key | Evidence Statement Keys | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------|----------------------------------------------------|-----------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------|--------------------------|-------------------------------------|--------------------------|-------------|-------------------------------------|--------------------------|--------------------------|-------------|--------------------------|-------------------------------------|--------------------------|-------------|--------------------------|--------------------------|-------------------------------------|---------|
| Part 1: Non-Calculator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | $\frac{7}{2}$ or equivalent | 8.EE.7b | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | D | 8.NS.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | A, E | 8.EE.8a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | A, B, D | 8.F.3-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 300 | 8.EE.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | <table><tr><th>Interval</th><th>Increasing</th><th>Decreasing</th><th>Neither Increasing nor Decreasing</th></tr><tr><td>$-7 < x < -3$</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>$-3 < x < 1$</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>$-1 < x < 1$</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>$1 < x < 3$</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>$3 < x < 5$</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>$5 < x < 7$</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table> | Interval | Increasing | Decreasing | Neither Increasing nor Decreasing | $-7 < x < -3$ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | $-3 < x < 1$ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | $-1 < x < 1$ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | $1 < x < 3$ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | $3 < x < 5$ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | $5 < x < 7$ | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8.F.5-1 |
| Interval | Increasing | Decreasing | Neither Increasing nor Decreasing | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $-7 < x < -3$ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $-3 < x < 1$ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $-1 < x < 1$ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1 < x < 3$ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3 < x < 5$ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $5 < x < 7$ | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | <table><tr><th>System of Equations</th><th>$\begin{cases} y = -x \\ 8y = -8x \end{cases}$</th><th>$\begin{cases} y = (3x + 1) \\ y = -4 \end{cases}$</th></tr><tr><td>No Solution</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>One Solution</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>Infinitely Many Solutions</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr></table> | System of Equations | $\begin{cases} y = -x \\ 8y = -8x \end{cases}$ | $\begin{cases} y = (3x + 1) \\ y = -4 \end{cases}$ | No Solution | <input type="checkbox"/> | <input type="checkbox"/> | One Solution | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Infinitely Many Solutions | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 8.EE.8b-3 | | | | | | | | | | | | | | | | |
| System of Equations | $\begin{cases} y = -x \\ 8y = -8x \end{cases}$ | $\begin{cases} y = (3x + 1) \\ y = -4 \end{cases}$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No Solution | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| One Solution | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infinitely Many Solutions | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | C, D | 8.G.1c | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | C | 8.EE.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | B | 8.F.1-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | (10, -2) | 8.EE.8b-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | <p>Part A: Figure 1 can be transformed onto figure 2 by a reflection across the x-axis followed by a translation 3 units to the right.</p> <p>Part B: Figure 1 can be transformed onto figure 3 by a rotation 90 ° clockwise about the origin followed by a reflection across the x-axis.</p> | 8.G.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| 13 | B, E | 8.EE.1 | | | | | | | | | | | | | | | | | | | | | |
| 14 | D | 8.F.1-2 | | | | | | | | | | | | | | | | | | | | | |
| 15 | A | 8.SP.2 | | | | | | | | | | | | | | | | | | | | | |
| 16 |  | 8.EE.8b-2 | | | | | | | | | | | | | | | | | | | | | |
| 17 | <table><tr><td>function</td><td>$y = 7 \times 4x$</td><td>$y = (2x + 5)^2$</td><td>$y = 10x^2$</td><td>$y = 5x - 3$</td><td>$y = \frac{x}{2}$</td><td>$y = 2x^3 + 1$</td></tr><tr><td>linear</td><td><input checked="" type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input checked="" type="radio"/></td><td><input checked="" type="radio"/></td><td><input type="radio"/></td></tr><tr><td>non-linear</td><td><input type="radio"/></td><td><input checked="" type="radio"/></td><td><input checked="" type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr></table> | function | $y = 7 \times 4x$ | $y = (2x + 5)^2$ | $y = 10x^2$ | $y = 5x - 3$ | $y = \frac{x}{2}$ | $y = 2x^3 + 1$ | linear | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | non-linear | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | 8.F.3-2 |
| function | $y = 7 \times 4x$ | $y = (2x + 5)^2$ | $y = 10x^2$ | $y = 5x - 3$ | $y = \frac{x}{2}$ | $y = 2x^3 + 1$ | | | | | | | | | | | | | | | | | |
| linear | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | | | | | | | | | | | | | | | | | |
| non-linear | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | | | | | | | | | | | | | | | | | |
| 18 | -2 | 8.EE.7b | | | | | | | | | | | | | | | | | | | | | |
| 19 |  | 8.NS.2 | | | | | | | | | | | | | | | | | | | | | |
| Part 2: Calculator | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 12 | 8.G.7-1 | | | | | | | | | | | | | | | | | | | | | |
| 2 | Part A: D Part B: 4.5 or equivalent | 8.EE.C.Int.1 | | | | | | | | | | | | | | | | | | | | | |
| 3 | B, C | 8.SP.4 | | | | | | | | | | | | | | | | | | | | | |
| 4 | Part A: 19 Part B: In the system of equations, x represents <div>the cost, in dollars, of each t-shirt</div> and y represents <div>the cost, in dollars, of each sweatshir</div> . Part C: (8, 11) Part D: 30 | 8.EE.8c | | | | | | | | | | | | | | | | | | | | | |

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| 5 | B, F | 8.F.2 |
| 6 | A, B, C, E | 8.EE.6-1 |
| | <p>Part A:</p>  <p>Part B: C Part C: D Part D: A</p> | |
| 7 | | 8.F.4 |
| 8 | <p>The rate of change in Proportion A is <input type="text" value="2.5"/> <input type="text" value="less"/> than the rate of change in Proportion B.</p> | 8.EE.5-2 |
| 9 | <p>Part A: C Part B: 8</p> | 8.SP.3 |
| 10 | <p>Least Rate of Change Greatest Rate of Change</p> <p><input type="button" value="Function B"/> <input type="button" value="Function A"/> <input type="button" value="Function C"/></p> | 8.F.2 |
| 11 | <p>Part A: B Part B: $\frac{1}{3}$</p> | 8.G.9 |

| | | |
|----|-----------------------------------------------------------------------------------|----------|
| 12 |  | 8.EE.5-1 |
| 13 | A | 8.EE.4-2 |